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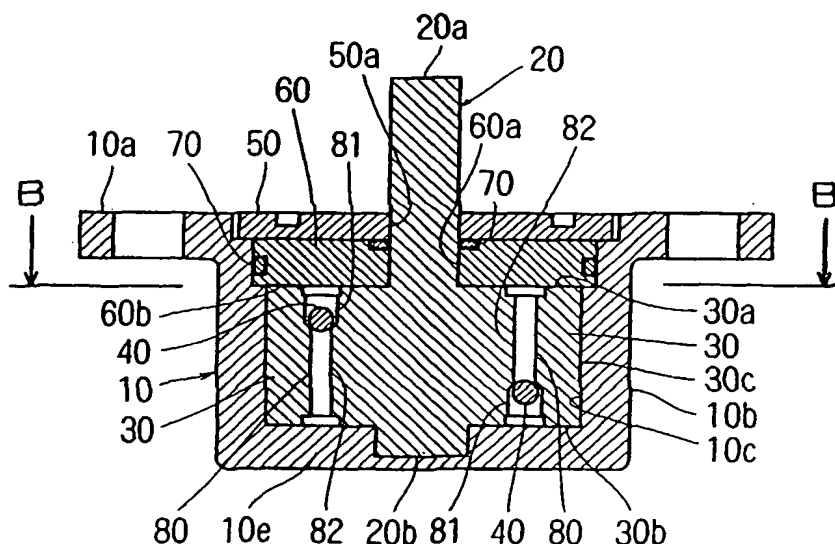
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(54) Title: ROTARY DAMPER

(54) 発明の名称: ロータリーダンパ



(57) Abstract: A rotary damper capable of reducing variations in the size of a gap via which a viscous liquid moving from a pressurized chamber to a non-pressurized chamber passes so as to provide a stable control characteristics. The rotary damper comprises a vane member (30) disposed to be rotatable with the rotation of a rotating shaft in a liquid chamber partitioned by a partition unit (10d) and filled with a viscous liquid, for bisecting the liquid chamber interior into a pressurized chamber and a non-pressurized chamber, a liquid passage (80) which has a large hole portion (81) and a small hole portion (82) consisting of a hole smaller than that in the large hole portion (81), penetrates the vane member (30) in

a direction almost parallel to the axial direction, and is so formed as to allow the large hole portion (81) to communicate with the pressurized chamber and the small hole portion (82) to communicate with the non-pressurized chamber, and a valve disc (40) movably disposed in the large hole portion (81) of the liquid passage (80).

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ABSTRACT

The present invention provides a rotary damper capable of reducing the variation in size of a gap through which viscous liquid passes when the viscous liquid moves from a pressure chamber to a non-pressure chamber, and capable of obtaining stable braking characteristics.

The rotary damper of the invention comprises a vane member 30 having an upper end surface 30a, a lower end surface 30b and a tip end surface 30c. The vane member 30 is disposed in a liquid chamber partitioned by the partition wall 10d in which viscous liquid is charged such that as the rotation shaft 20 rotates, the vane member 30 can rotate while allowing its upper end surface 30a, lower end surface 30b and tip end surface 30c to respectively slide on a lower surface 60b of a closing member which closes an opening of the body case 10, an inner surface of a bottom wall 10e of the body case 10 and an inner peripheral surface 10c of the body case 10, the vane member 30 partitions the liquid chamber into a pressure chamber and a non-pressure chamber. The rotary damper further comprises a liquid passage 80 which has a large hole portion 81 and a small hole portion 82 smaller than the large hole portion 81, which penetrates the vane member 30 in a direction substantially parallel to an axial direction, the large hole portion 81 being in communication with the pressure chamber, and the small hole portion 82 being in communication with the non-pressure chamber, and a valve body movably disposed in the large hole portion 81 of the liquid passage 80.